

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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OPTICAL COMMUNICATIONS GROUP, INC.,

Case No. 11-cv-04439-NRB FM

Plaintiff,

DECLARATION OF
H. ARNOLD CARR

-against-

M/V AMBASSADOR, its engines, boilers, furniture,
tackle, apparel, etc., *in rem* and MARBULK
CANADA, INC., *in personam*,

Defendants.
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H. ARNOLD CARR, declares under penalty of perjury under the laws of the United States of America that:

1. I am President of American Underwater Search and Survey, Ltd. (AUSS), a company that specializes in, among other activities, underwater recovery services and sonar readings of the sea floor. I have been involved in the worldwide search for lost aircraft, vessels, geologic structures and marine features using side scan sonar. Attached is a copy of my resume. (Exhibit 1)
2. In April 2010, we were engaged by marine salvors Miller's Launch to help locate and recover a submerged fiber optic cable in the vicinity of the Verrazano Narrows Bridge, which had reportedly been severed by a ship's anchor. I was on board the survey vessel during the search and recovery efforts and examined the side scan sonar data as it was acquired and after it was acquired.

3. I was advised that the cable was installed in an East-West direction between Brooklyn and Staten Island in a charted cable area south of the Verrazano Narrows Bridge and the north of Gravesend Bay Anchorage. We initially focused recovery efforts to the south of the marked cable area based on information obtained from the U.S. Coast Guard. These locations are noted as "DROP", "AMB1" and "AMB2" on a chart that I generated. (Exhibit 2; AMB means M/V AMBASSADOR). However, we did not locate the cable or any cable remnants in these locations.
4. After we could not locate the cable in the locations obtained from the Coast Guard, we then shifted our search and recovery efforts further to the north toward and in the marked cable crossing area. We eventually did locate various cable or cable-like remnants on the bottom. These targets were marked with buoys and divers from Randive would then dive to these targets.
5. The sonar data shows that the cable was positioned within the cable area. The cable crossed the southern demarcation line of the cable area in the location it was dragged by the anchor of the M/V AMBASSADOR.
6. The cable was not found within the Gravesend Bay Anchorage, or in proximity to a charted wreck symbol.
7. The 'scour' mark on the sea bottom, apparently created by the ship's anchor when it dropped to the sea floor was within the vicinity of the cable area.
8. The cable was buried under mud. This information is corroborated by the divers who saw the cable going under a mud cover of several feet.

10. Even after the cable was dragged several hundred yards, the East-West laying cable remnants were north of the location suggested by a chart relied on by the AMBASSADOR (AMBASSADOR's Exhibit 5).

Dated:

18 Sept. 2012

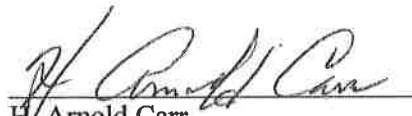

H. Arnold Carr

EXHIBIT "1"

H. ARNOLD CARR

17 Timberknoll Road, P.O. Box 464
Monument Beach, MA 02553-0464
508 759 2049
acarrauss@aol.com

Education:

B.A. Zoology, 1965, University of Massachusetts, Amherst, MA

Biological Oceanography (Graduate Course) SMU, Dartmouth, MA
Nautical Archaeology, Harvard University, Cambridge, MA

Professional Experience

U.S. Merchant Marine Officer, Master of Steam and Motor Vessels of not more than 100 gross tons upon near coastal waters 1978 - present

Principal in American Underwater Search and Survey, Ltd. 1978 – present

Has planned and completed underwater surveys around the world for lost aircraft, lost vessels, geological structures, marine resources and oceanographic features using side scan sonar, magnetometers, underwater video systems and sub bottom profilers integrated with GPS systems. Depth experience with this equipment is to 600 meters.

Food and Agriculture Organization to the UN. Fisheries Consultant 2007. I reviewed several papers on global marine debris assessment and assisted in a by-catch reduction workshop in Africa.

Senior Marine Fisheries Biologist, Massachusetts Division of Marine Fisheries 1983-2002

Project leader for a program primarily involved in the selective action and impact of fishing gear on fish stocks and the seabottom. This involved both mobile and stationary fishing gear. Monitoring included extensive use of acoustic mensuration equipment, towed systems and underwater hardwire and stand-alone video.

Associate Researcher, New England Aquarium 1992-2002

Co-principal Investigator on five federally funded programs relating to fishing and its impacts.

Associate Researcher, Woods Hole Oceanographic Institute 2000-2001

Massachusetts Division of Marine Fisheries 1965-1983. Various responsibilities including shellfish management, restoration of marine resources impacted by oil spills, assessment of power plants on marine life, and marine resource management.

Other Selected Activities:

Marine Resource Education Program – Science Module. 2006 to present. Presented and led discussion on Fishing Gear Operations and Innovations that includes fish behavior, fish selectivity and gear impacts. This is a program designed to provide a forum for fishermen, scientists, government administrators and managers, and advocates from non-governmental organizations.

NOAA Saltonstall-Kennedy National Review Panel member 2002 and 2007. This panel reviews proposals after select experts comment on the proposals; the panel then recommends to NOAA which to fund. No funds were available in 2003-2006.

Northeast Consortium, science and technical review panel for cooperative fishing related proposals. 2003-2006

I and partner John P. Fish located two sites involving three, century-old ships that are now listed in the U. S. National Register of Historic Places. One of these vessels was the first vessel to ever have this designation. In addition to this, we have successfully researched, located and analyzed the remains of over 300 vessels off the Atlantic coast. These vessels include a number of four-masted schooners, three six-masted schooners, six pre-1900 coastal steamers, and W.K. Vanderbilt's 282 foot yacht that sank in 1895.

NOAA, Office of Ocean Exploration, national technical review panel 2002-2004

USA Delegate (designated) - International Council for the Exploration of the Sea (ICES), Fish Technology and Fish Behaviour Working Group, 1991-2002

Massachusetts Division of Marine Fisheries Scuba Diving Board, 1978-2002

Chief Scientist NOAA R/V Delaware cruise July 1992

Chief Scientist ROV Expeditions to assess fishing gear impact 1986-2002

Co-Chief Scientist Submersible Dive Operations, Gulf of Maine, 1984 - 1986

Participating Scientist, Deep Submersible ALVIN Expedition to Northwest Atlantic Canyons 1981

Selected Publications

Fish, J.P. and H.A. Carr **Sound Reflections**. AUSS Ltd. 2002 274pp. This book has been applauded as a "must have" manual for those using and interpreting side scan sonar. Navies, hydrographic agencies and institutions about the world use it. See Website: www.instituteformarineacoustics.org

Carr, H.A. 2000. Remote Imaging of Submerged Man-made Structures. pp96-101. Underwater Archaeology and Coastal Management, Focus on Alexandria. UNESCO Publishing Coastal Management Sourcebook 2 edited by Mostafa M.H., D. Grimal and D. Nakashima. USBN 92-3-103730-7

Carr, H.A. and J. Harris. 1996 Ghost-Fishing Gear: Have Fishing Practices During the Past Few Years Reduced the Impact? p141-151. Marine Debris edited by Coe, J.M. and D.B. Rogers. Springer-Verlag NY, ISBN 0-387-94759-0

Carr, H.A. & J.P. Fish. 1992 The Application of Side Scan Sonar in Active and Passive Modes to Locate Targets and Generate High Resolution Sonagrams. MTS'92 Proceedings

Fish, J.P. & H.A. Carr. 1992 ROV, Divers, and Acoustics Team for Target Recovery. SEA TECHNOLOGY, June 1992

Fish, J.P. & H.A. Carr. 1991 **Sound Underwater Images**. AUSS Ltd., Cataumet, MA 194pp.(published in three languages). This text is still considered the best "bible" on sidescan sonar interpretation by the sonar professional community. See Website: www.instituteformarineacoustics.org

Fish, J.P. & H.A. Carr. 1990 High Resolution Acoustic and Optical Imaging of Discrete Underwater Targets. Proceedings Subsea Search and Salvage '90'

Selected Expeditions of Note:

Operations Director relating to NOAA, NMFS acoustic surveys for sea turtle interactions with stationary fishing gear in Chesapeake Bay, 2004 with subsequent sole source awards in 2005 and 2006

Survey Leader on the Recovery of the 1761 Shipwreck AUGUSTE of Cape Breton. 2001-present.

Operations Director for AUSS: Locating and recovering China Airlines 747 Flight CA1611 off Taiwan, 2002

Operations Director for AUSS: Geological and archaeological survey of Long Island Sound (for Institute for Exploration, Dr. Robert Ballard) 2000

Operations Director for AUSS: Geological survey of the Black Sea (for Institute for Exploration, Dr. Robert Ballard) 1999

Operational Director: AUSS's assigned operations to locate small parts from TWA 800.

Operations Director: Surveying man-made structure and aircraft debris. Taiwan 1998

Operation Director: Survey to Locate Three Seagoing Containers containing cyanide in 500m off Chile 1994-95

Operations planner and diver for the HMS deBraak recovery off Delaware.

Awards:

NOAA Environmental Hero 2000 (one of 64 in the U.S.)

Clarence Birdseye Award 1997

Pride in Excellence 1993. Awarded by Boeing Commercial Aircraft Group

Eagle Scout

References:

Available upon request

EXHIBIT "2"

